

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An exhaust emission control system of an internal combustion engine, comprising:

an exhaust gas purifying device arranged in an exhaust gas passage extending from the engine, the exhaust purifying device including a NO_x trapping catalyst that traps NO_x in the exhaust gas when an exhaust air/fuel ratio is leaner than stoichiometric and releases the trapped NO_x therefrom when the exhaust air/fuel ratio is richer than stoichiometric, and a particulate filter that collects a particulate matter in the exhaust gas;

a condition detecting device that detects a condition of an amount of the particulate matter that would be deposited on the particulate filter; and

an exhaust air/fuel ratio control device that controls the exhaust gas from the engine in such a manner that the exhaust gas has a target exhaust air/fuel ratio,

wherein the exhaust air/fuel ratio control device is configured to carry out:

upon changing of the exhaust air/fuel ratio from a stoichiometric or richer side to a leaner side, varying the exhaust air/fuel ratio under the leaner air/fuel exhaust condition in accordance with the condition of the particulate filter includes a first system that, when the amount of the deposited particulate matter detected by the condition detecting device reaches a predetermined amount, starts to increase the temperature of the particulate filter for burning the particulate matter in the filter, and

wherein the exhaust air/fuel ratio control device further includes a second system that, upon sensing a change of the exhaust air/fuel ratio from a stoichiometric or richer side to a leaner side and sensing an excess of the detected amount of the deposited particulate matter over a predetermined lower limit, varies the exhaust air/fuel ratio under the leaner air/fuel ratio exhaust condition in accordance with the detected amount of the deposited particulate matter.

2. (Canceled).

3. (Original) An exhaust emission control system as claimed in Claim 1, in which the condition detecting device detects a temperature of the particulate filter, and in which the exhaust air/fuel ratio control device varies the target exhaust air/fuel ratio under the leaner air/fuel exhaust condition when the temperature of the particulate filter exceeds a predetermined temperature.

4. (Currently Amended) An exhaust emission control system as claimed in Claim 2 Claim 1, in which the exhaust air/fuel ratio control device controls the target exhaust air/fuel ratio under the leaner air/fuel exhaust condition in such a manner as to lower an oxygen concentration in the exhaust gas as the amount of the deposited particulate matter increases.

5. (Original) An exhaust emission control system as claimed in Claim 3, in which the exhaust air/fuel ratio control device controls the target exhaust air/fuel ratio under the leaner air/fuel exhaust condition in such a manner as to lower an oxygen concentration in the exhaust gas as the temperature of the particulate filter increases.

6. (Original) An exhaust emission control system as claimed in Claim 1, in which the exhaust air/fuel ratio control device varies the target exhaust air/fuel ratio under the leaner air/fuel exhaust condition when the engine is under a predetermined operation condition.

7. (Original) An exhaust emission control system as claimed in Claim 1, in which the exhaust air/fuel ratio control device controls the exhaust air/fuel ratio to the target ratio by controlling an amount of intake air fed to the engine.

8. (Original) An exhaust emission control system as claimed in Claim 1, further comprising an EGR device that feeds a part of the exhaust gas of the engine back to an intake system of the engine.

9. (Original) An exhaust emission control system as claimed in Claim 8, in which the exhaust air/fuel ratio control device controls the exhaust air/fuel ratio to the target ratio by controlling an amount of the exhaust gas fed back to the intake system of the engine.

10. (Original) An exhaust emission control system as claimed in Claim 1, in which the NOx trapping catalyst is arranged upstream of the particulate filter.

11. (Currently Amended) An exhaust emission control system of a diesel engine, comprising:

a NOx trapping catalyst arranged in an exhaust gas passage extending from the engine, the NOx trapping catalyst trapping NOx in the exhaust gas when an exhaust air/fuel ratio is leaner than stoichiometric and releasing the trapped NOx therefrom when the exhaust air/fuel ratio is richer than stoichiometric;

a diesel particulate filter arranged in the exhaust gas passage at a position downstream of the NOx trapping catalyst, the diesel particulate filter collecting a particulate matter in the exhaust gas;

a first temperature sensor that detects a temperature of the NOx trapping catalyst;

a second temperature sensor that detects a temperature of the diesel particulate filter;

an exhaust pressure sensor that detects an exhaust pressure exerted in the exhaust gas passage between the NOx trapping catalyst and the diesel particulate filter;

an air/fuel ratio sensor that senses an exhaust air/fuel ratio of the exhaust gas discharged from the diesel particulate filter;

an exhaust air/fuel ratio controller that is ~~capable of adapted~~ for varying the exhaust air/fuel ratio when operated; and

a control unit that controls the operation of the exhaust air/fuel ratio controller by processing information signals from the first and second temperature sensors, the exhaust pressure sensor and the air/fuel ~~ration~~ ratio sensor,

the control unit being configured to carry out:

upon sensing a change of the exhaust air/fuel ratio from a stoichiometric or richer side to a leaner side by the exhaust air/fuel ratio controller, varying the exhaust air/fuel ratio under the leaner air/fuel exhaust condition in accordance with at least one of the information signal from the second temperature sensor and the information signal from the exhaust pressure sensor.

12. (Currently Amended) In an internal combustion engine system comprising an exhaust purifying device arranged in an exhaust gas passage extending from the engine, the exhaust purifying device including a NO_x trapping catalyst that traps NO_x in the exhaust gas when an exhaust air/fuel ratio is leaner than stoichiometric and releases the trapped NO_x therefrom when the exhaust air/fuel ratio is richer than stoichiometric, and a particulate filter that collects a particulate matter in the exhaust gas; a condition detecting device that detects a condition of an amount of the particulate matter that would be deposited on the particulate filter; and an exhaust air/fuel ratio control device that controls the exhaust gas from the engine in such a manner that the exhaust gas has a target exhaust air/fuel ratio,

a method for controlling the exhaust air/fuel ratio control device comprising:

starting to increase the temperature of the particulate filter for burning the particulate matter in the filter when the amount of the deposited particulate matter detected by the condition detecting device reaches a predetermined amount; and

varying the exhaust air/fuel ratio under the leaner air/fuel ratio exhaust condition in accordance with the detected amount of the deposited particulate matter upon sensing a change of the exhaust air/fuel ratio from a stoichiometric or richer side to a leaner side and sensing an excess of the detected amount of the deposited particulate matter over a predetermined lower limit.

~~detecting a change of the exhaust air/fuel ratio from a stoichiometric or richer side to a leaner side; and~~

~~forcing the exhaust air/fuel ration control device to vary the exhaust air/fuel ratio under the leaner air/fuel exhaust condition in accordance with the condition of the particulate filter.~~